

IN THE ABSTRACT:

Please replace the abstract at page 33, lines 1-5 with the following rewritten abstract:

ABSTRACT OF THE DISCLOSURE

C1 A system for detection and treatment of chemical weapons and/or biological pathogens uses a detector system, an electrostatic precipitator or scrubber, a circulation system, and a control. The precipitator or scrubber is activated in response to a signal from the detector upon the detection of chemical weapons and/or biological pathogens.

IN THE CLAIMS:

Please substitute the following amend versions of claims 1-18. Attached hereto is a marked-up version of the changes made to the claims. The attached page is captioned "Version with markings to show changes made." The individual amended claims are set out in "clean" form below.

Sub D1 1. (Amended) A system for protecting an enclosure against chemical weapons and/or biological pathogens by the detection and treatment of chemical weapons and/or biological pathogens agents within air inside of an enclosed airspace that is a gathering area for people, comprising:

C2 a detection system for detecting said chemical weapons and/or biological pathogens agents within said air,

a treatment system for treating said chemical weapons and/ or biological pathogens agents, and

a control, responsive to said detection system, for activating said treatment system in response to detection of said chemical weapons and/or biological pathogens agents within said air.

Sub E1 2. (Twice Amended) The system of claim 1 wherein said detection system utilizes immunoassays and said immunoassays include antibody based or synthetic-peptide based immunoassays.

3. (Twice Amended) The system of claim 1 wherein said detection system utilizes nucleic-acid-based assays and said nucleic-acid-based assays include polymerase chain reaction immunoassays.

4. (Amended) The system of claim 1 wherein said detection system utilizes mass-spectrometric-based assays.

C2 5. (Twice Amended) The system of claim 1 wherein said detection system utilizes a plurality of assays and said detection system utilizes a plurality of assays include antibody based or synthetic-peptide based immunoassays, nucleic-acid-based assays and said antibody based or synthetic-peptide based immunoassays, nucleic-acid-based assays include polymerase chain reaction immunoassays, and mass-spectrometric-based assays.

6. (Twice Amended) The system of claim 1 including a circulation system for circulating said air to said detection system and said treatment system and a control connected to said treatment system and said circulation system for inactivating said circulation system if said treatment system shuts down prematurely.

Sub D2 7. (Amended) A method for protecting an enclosure against chemical weapons and/or biological pathogens by the detection and treatment of chemical weapons and/or

biological pathogens agents within the air inside of an enclosed airspace that is a gathering area for people, the air circulated in an air stream, comprising:

circulating said air within said air stream,  
detecting said chemical weapons and/or biological pathogens agents,  
generating a signal upon detection of said chemical weapons and/or biological pathogens agents, and  
using said signal to activate a treatment system connected to said air stream for treating said chemical weapons and/or biological pathogens agents.

8. (Amended) The method of claim 7, including the step of stopping said circulation system if said treatment system shuts down.

C281D3 9. (Amended) An apparatus that detects the presence of airborne chemical weapons and/or biological pathogens threats to the human occupants of an enclosed airspace that is served by a forced-air circulation system and treats said chemical weapons and/or biological pathogens threats, comprising:

an autonomous chemical and pathogen detector within the said forced-air circulation system that detects the presence of airborne chemical weapons and/or biological pathogens threats,

a treatment system for treating said chemical weapons and/or biological pathogens threats, and

a control, responsive to said autonomous chemical and pathogen detector, for activating said treatment system in response to detection of said chemical weapons and/or biological pathogens agents.

10. (Amended) An apparatus that detects and identifies the presence of airborne chemical and/or biological threats to the human occupants of an enclosed airspace that is served by a forced-air circulation system comprising:

an autonomous chemical and/or pathogen detector means within the said forced-air circulation system for detecting, identifying, and quantifying the presence of airborne chemical weapons and/or biological pathogens threats,

treatment means for treating said chemical weapons and/or biological pathogens threats, and

control means, responsive to said autonomous chemical and pathogen detector means, for activating said treatment means in response to detection of said chemical weapons and/or biological pathogens agents.

c2 11. (Amended) An apparatus that detects, identifies, and quantifies the presence of airborne chemical weapons and/or biological pathogens threats to the human occupants of an enclosed airspace that is served by a forced-air circulation system and treats said airborne chemical weapons and/or biological pathogens threats, comprising:

an autonomous chemical and/or pathogen detector within the said forced-air circulation system that detects, identifies, and quantifies the presence of airborne chemical weapons and/or biological pathogens threats,

a treatment system for treating said chemical weapons and/or biological pathogens threats, and

a control, responsive to said autonomous chemical and/or pathogen detector, for activating said treatment system in response to detection of said chemical weapons and/or biological pathogens agents.

Sub E1 12. (Amended) The apparatus of claim 11 wherein said autonomous chemical and pathogen detector utilizes immunoassays and said immunoassays include antibody based or synthetic-peptide based immunoassays.

13. (Amended) The apparatus of claim 11 wherein said autonomous chemical and pathogen detector utilizes nucleic-acid-based assays and said nucleic-acid-based assays include the polymerase chain reaction.

14. (Amended) The apparatus of claim 11 wherein said autonomous chemical and/or pathogen detector utilizes mass-spectrometric-based assays.

C2 15. (Amended) The apparatus of claim 11 wherein said autonomous chemical and pathogen detector utilizes a plurality of assays and said plurality of assays include antibody based or synthetic-peptide based immunoassays, nucleic-acid-based assays and said antibody based or synthetic-peptide based immunoassays, nucleic-acid-based assays include the polymerase chain reaction immunoassays, and mass-spectrometric-based assays.

Sub D4 16. (Amended) The apparatus of claim 11 wherein said treatment system utilizes an electrostatic precipitation.

17. (Amended) The apparatus of claim 11 wherein said treatment system utilizes an aqueous-based spray/aerosol scrubbing system.

18. (Amended) The apparatus of claim 11 wherein said treatment system utilizes both electrostatic precipitation and an aqueous-based spray/aerosol scrubbing system.